

claims 1-7 and 11. If this understanding is incorrect, the Examiner is requested to provide specific reasons on the record why claims 1-7 and 11 are unpatentable under §112, ¶2.

In making the rejection with respect to claims 8-10, the Examiner asserts that "it is not clear as to what extent does 'Olfactory' limit the genus of the alcohols, aldehydes and ketones." (*Id.*).

For the reasons presented below, this rejection is respectfully traversed.

As is well settled, the operative standard for determining whether the requirement of 35 USC 112, ¶2, has been met is "whether those skilled in the art would understand what is claimed when the claim is read in light of the specification." *Orthokinetics Inc. v. Safety Travel Chairs Inc.*, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). In rejecting a claim under 35 USC 112, ¶2, it is incumbent upon the examiner to establish that one of ordinary skill in the pertinent art, when reading the claims in light of the supporting specification, would not have been able to ascertain with a reasonable degree of precision and particularity the particular area set out and circumscribed by the claims. *Ex parte Wu*, 10 USPQ 2d 2031, 2033 (B.P.A.I. 1989).

The term "olfactory" is used in the specification in its ordinary and accustomed meaning (i.e., "of, relating to, or connected with the sense of smell"). See, WWW Webster Dictionary attached hereto as Exhibit A. Moreover, the specification provides a list of examples of olfactory alcohols, aldehydes, and ketones on page 8, line 32 - page 12, line 22 of the specification. Thus, the "olfactory" alcohols, aldehydes, and ketones set forth in claims 8-10 refer to compounds having a smell, which compounds are readily recognized by one skilled in the art.

It is respectfully submitted that when claims 8-10 are read in light of the specification and the art-recognized meaning of the term "olfactory," the claims are definite.

Accordingly, for the reasons set forth above withdrawal of this rejection, respectfully is solicited.

Claims 12-14 were also rejected as indefinite allegedly because they “recite a compound but do not define all of the atoms and bonds in the compound.” (Paper No. 5 at 4).

For the reasons presented below, this rejection is respectfully traversed.

It is well settled that a dependent claim incorporates by reference all the limitations of the claim from which it depends. (See, 35 USC §112, ¶4). Claims 12 and 13 both depend from claim 1, and claim 14 depends from claim 13. Claim 1 clearly recites the X, R², R³, and R⁴ substituents. Thus, it is respectfully submitted that claims 12-14 are definite because each of the atoms and bonds for the X, R², R³, and R⁴ substituents are clearly recited in claim 1.

Accordingly, for the reasons set forth above withdrawal of this rejection, respectfully is solicited.

Claims 15-18 also were rejected as indefinite allegedly because “[t]he claims do not set forth any steps involved in the method/process, and it is unclear whether ‘activation’ is required or not to meet the claim(s).” (Paper No. 5 at 4).

For the reasons presented below, this rejection is respectfully traversed.

Claim 15 recites “a method for preparing compositions ... comprising **incorporating** into one of these compositions a compound of formula I” It is respectfully submitted that “incorporating” is, in fact, a step which is clearly recited in the claim. As recited in claim 15, a compound of formula I is **incorporated** into (i.e., added to) the composition. Thus, prior to the incorporation step, the composition does not contain a compound of formula I. Only upon incorporation of a compound of formula I into the composition is the composition capable of having, “upon activation organoleptic, antimicrobial or fluorescent whitening properties.”

Accordingly, it is respectfully submitted that claims 15-18 do recite a “step” and are definite. Thus, the rejection should be withdrawn.

In addition, the use of the term “activation” in the preamble of claim 15 indicates what happens after the composition is prepared. The claim recites a process for preparing compositions that have certain properties once activated. One skilled in the art, when reading claims 15-18 in conjunction with the rest of the specification would clearly be able to ascertain the metes and bounds of these claims. And, that is all that is required under 35 USC §112, ¶2.

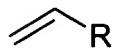
Thus, for this additional reason, the rejection should be withdrawn.

Claims 1-3, 6, 7, and 11-14 were rejected under 35 USC §103(a) as obvious over Kaufmann *et al.*, US Patent No. 5,334,750 (“Kaufmann”) or alternatively Florent *et al.* FR 2,736,354 (“Florent”). (Paper No. 5 at 2).

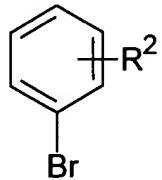
Because Florent is written in French and the Examiner provided no English equivalent, it is believed that the Examiner relied upon an English abstract of Florent to make the rejection. (A copy of an English language Abstract of Florent is attached hereto as Exhibit B). If this understanding is incorrect, the Examiner is requested to indicate this on the record, and provide us with an English translation of what was relied upon to make the rejection.

Kaufmann discloses a process for preparing cinnamic acid derivatives from bromoaromatics and acrylic acid derivatives in the presence of palladium catalysts and a phosphane. The reaction is carried out in the presence of an inorganic base, a large excess (based on palladium) of phosphane, and an alcohol and/or a phase transfer catalyst. (Col. 1, lines 60-66).

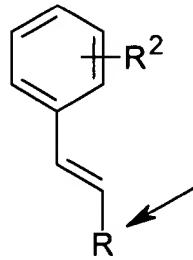
In the Kaufmann reaction, an acrylic acid derivative of formula I:



is reacted with a bromoaromatic, for example, a bromobenzene of formula II:



to form a cinnamic acid derivative of formula (IV):



wherein

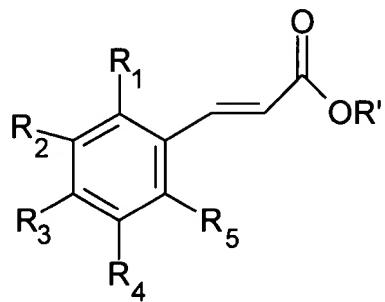
R is CN or COR¹;

R¹ is OH, O-C₆-C₁₀-aryl, O-C₁-C₂₀-alkyl, NH₂, NH-C₆-C₁₀-aryl, NH-C₁-C₂₀-alkyl, N-C₆-C₁₀-aryl, N-C₁-C₂₀-alkyl-C₆-C₁₀-aryl or N-di-C₁-C₂₀ alkyl;

R² is H, C₆-C₁₀-aryl, C₁-C₂₀-alkyl, OR³ or NR³₂; and

R³ is H, C₆-C₁₀-aryl or C₁-C₂₀-alkyl. (Col. 2, lines 15-42; and Col. 4, lines 13-27).

Florent discloses processes for preparing esters of formula I:



wherein

R₁-R₅ are H, OH, halogen (preferably F), an ether group (preferably methyl or ethyl ether), or an optionally substituted C chain; and

R' is an optionally unsaturated C chain, optionally carrying an aromatic ring. (See, Exhibit B).

The compounds of Florent are used in cosmetics, such as UV filters in sun screens, in perfumery, and as antioxidants. (*Id.*).

In making the rejection, the Examiner relied upon both Kaufmann and Florent as teaching a “compound of formula I wherein R¹ is an aliphatic or aromatic hydrocarbon, R² is a hydrogen, R³ is a hydrogen and X is a hydroxy group.” (Paper No. 5 at 3). The Examiner acknowledged, however, that Kaufmann and Florent “differ from the instant application in the length of the aliphatic and aromatic carbon chain, R¹ ... and that the acrylic double bond is of the E-configuration.” (*Id.*). The Examiner then contended that it would have been “*obvious ... to determine* that the acrylic double bond **must** be in the E configuration because the resulting

cinnamic acid derivatives **would be more stable** than the corresponding ones with the double bond in the *cis* configuration.” (*Id.*).

Initially, it is noted that the rejection uses an “obvious to determine” standard to reject the claims under 35 USC §103. Such a standard, in essence, is an invitation to experiment until an applicant’s claims are derived. This is not the proper standard for rejecting claims under §103. See, *In re Lindell*, 155 USPQ 521, 523 (C.C.P.A. 1967) (“Serendipity is not a prerequisite to patentability. Our view is that “obvious to try” is not a sufficiently discriminatory test.”); and *In re Geiger*, 2 USPQ 2d 1276, 1278 (Fed. Cir. 1987) (“At best, in view of these disclosures, one skilled in the art might find it obvious to try various combinations of these known scale and corrosion prevention agents. However, this is not the standard of 35 U.S.C. §103.”).

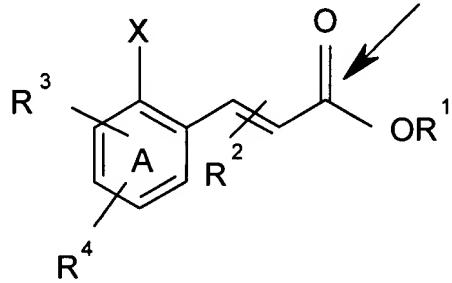
In view of the improper standard used in the rejection, which is not supported by law or fact, the rejection should be withdrawn for this reason alone.

The rejection also posits that one skilled in the art would determine that the acrylic double bond **must** be in the E-configuration because it would be more stable. Even if this is true, the rejection fails to identify which part of either (or both) references support such a contention. Moreover, the rejection fails to provide any reason *why* the E-configuration, in all instances, would be the more desirable, and hence always chosen by one of skill in the art.

As is well settled, an Examiner’s belief or conjecture is no substitute for statutory prior art. *In re Kratz*, 201 USPQ 71, 76 (C.C.P.A. 1979) *citing*, *In re Antonie*, 195 USPQ 6 (C.C.P.A. 1977). (“We have previously rejected the argument that undirected skill of one in the pertinent art is an adequate substitute for statutory prior art.”). Because the rejection has substituted conjecture as to what one skilled in the art would believe for the required statutory reference, the rejection should be withdrawn.

Moreover, it is noted that the rejection never addresses the acknowledged gap that both “Kaufmann and Florent differ from the instant application in the length of the aliphatic and aromatic carbon chains.” Thus, the rejection is insufficient as a matter of law because it is not supported with any argument, let alone the requisite “facts” required to address the acknowledged difference in hydrocarbon chain length between the present claims and Kaufmann and Florent. (As is fundamental, a *prima facie* case of obviousness must be based on facts “cold hard facts.” *In re Freed*, 165 USPQ 570, 571-72 (C.C.P.A. 1970). When the rejection is not supported by facts, it cannot stand. *Ex parte Saceman*, 27 USPQ2d 1472, 1474 (B.P.A.I. 1993)). For this reason also, the rejection should be withdrawn.

Claim 1 of the present invention recites a compound of Formula I:



wherein

A is selected from benzene and naphthalene rings;

R¹ is a saturated, unsaturated, straight, branched, alicyclic or an aromatic C₁₀-C₃₀ hydrocarbon residue which can contain heteroatoms and can be substituted by an ionic substituent;

R² in 2- or 3-position is a hydrogen, a straight or branched C₁-C₆ residue, an optionally substituted aromatic or an optionally substituted heterocyclic residue;

R³ and R⁴ are a hydrogen, a straight or branched C₁-C₆ alkyl, a C₁-C₆ alkoxy residue, a substituted or condensed heterocyclic residue, -OH, -NO₂, -NH₂, -N(C₁-C₆ alkyl)₂, -N(hydroxyalkyl)₂, -NHCO₂CH₃ or -NH(heterocycle),

wherein R², R³ and R⁴ are the same or different;

X is an -OH and NHR⁶, wherein R⁶ is a hydrogen, a saturated or unsaturated, straight or branched C₁-C₂₀ hydrocarbon, or an optionally substituted aromatic or heterocyclic residue; and

the acrylic double bond is of the E configuration.

With respect to the Kaufmann rejection, it is respectfully submitted that the rejection neglected to consider every element of claim 1. In particular, the Examiner's attention is drawn to the arrows set forth above in Formula I of claim 1 and Formula IV of Kaufmann. The arrows highlight a major difference between the present claims and the Kaufmann formula, i.e., the recitation of a -COO- group which is not described in Kaufmann.

In view of the major structural difference between Kaufmann and claims 1-3, 6, 7, and 11-14, it is respectfully submitted that the rejection is insufficient as a matter of fact. Moreover, because the rejection fails to provide any reasoning or facts to suggest that the lack of a -COO- group in Kaufmann would nonetheless render obvious the rejected claims, the rejection is also insufficient as a matter of law.

Accordingly, for the reasons set forth above withdrawal of the rejection with respect to Kaufmann, respectfully, is solicited.

It is well settled that just because a prior art document may be modified in the manner suggested by an Examiner, that modification does not render the claimed invention obvious unless the prior art document suggested the desirability of the modification. *In re Fritch*,

23 USPQ2d 1780, 1783–84 (Fed. Cir. 1992). Moreover, a generic formula that *may* be modified to arrive at what is claimed is not sufficient to sustain an obviousness rejection. There must be some suggestion in the reference to select the particular combination of variables in the formula that would give rise to what applicants have claimed. *In re Baird*, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994).

The present rejection boldly asserts that “Florent teaches compounds of formula I,” and postulates a *single* compound falling within the scope of claim 1 (formula I) that may be derived if all *six* substituents defined by Florent are appropriately selected. Florent, however, “teaches” *processes* for preparing compounds useful as UV-absorbers. Moreover, the specific compound postulated by the rejection is nowhere specifically disclosed by Florent. Furthermore, the rejection fails to provide any reason or motivation why it would be obvious to select the substituents in the manner suggested by the Examiner. And, the rejection provides no evidence to suggest that the postulated compound would even work as a UV filter, and thus provides no evidence or reasoning to suggest that such a compound would be obvious to one skilled in the pertinent art.

The determination of obviousness is not the mechanistic overlaying of chemical formulae to observe whether a difference greater than, e.g., a methylene or a chlorine atom exists. What is required is some motivation, suggestion, or blaze mark within the reference which would lead one skilled in the art to appreciate the obviousness of a claimed compound in view of the disclosure of the reference. See, *In re Papesch*, 137 USPQ 43, 51 (CCPA 1963), *In re Ruschig*, 145 USPQ 274 (CCPA 1965), *In re Fritch*, 23 USPQ2d 1780, 1783–84 (Fed. Cir. 1992). No such motivation, suggestion, or blaze mark is identified in the rejection. Thus, for this reason alone the rejection based on Florent should be withdrawn.

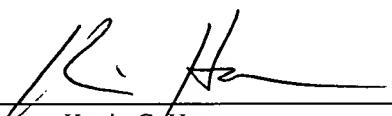
Furthermore, Florent teaches *processes* for preparing UV-absorbers. The present claims, however, recite organoleptic precursor *compounds*. The rejection provides no reasoning or evidence to suggest that a perfumer interested in making a precursor for an organoleptic compound of the type recited in the present claims would even consider reviewing the process literature for preparing UV-absorbers. It is respectfully submitted that the field of UV-absorbing compounds and processes is outside the field of organoleptic precursor synthesis and that Florent is not "reasonably pertinent" to the subject matter of the present claims. *In re Wood*, 202 USPQ 171, 174 (C.C.P.A. 1979). Thus, Florent is non-analogous art, and may not be used to support a rejection of the present claims based on obviousness.

Accordingly, for this additional reason, the rejection based on Florent should be withdrawn.

In addition, in view of the discussion above, we note that claims 4 and 5 were not subject to any sustainable rejection, and therefore presumably are allowable.

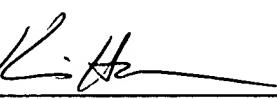
In view of the foregoing, favorable action on the merits, including withdrawal of the rejection and allowance of all the claims, respectfully, is solicited. If the Examiner has any questions regarding this paper, please contact the undersigned attorney.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231, on February 11, 2000.



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